



KEEP CUSTOMERS AND OURSELVES SAFE

Eileen Rackers, State Traffic and Highway Safety Engineer



Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE



Safety is a daily commitment for all MoDOT employees. From design and construction to operations and maintenance of the state transportation system, the safety of our customers, partners, and employees is our top priority. We work with our safety partners to promote safe behavior for all users and modes of transportation so everyone goes home safe every day.

RESULT DRIVER:
Eileen Rackers,
State Traffic and Highway
Safety Engineer

MEASUREMENT
DRIVER:
Leanna Depue,
Highway Safety Director

PURPOSE OF
THE MEASURE:
The fatal and serious injury
number measures track
quarterly, annual and five-
year average trends result-
ing from traffic crashes on
all Missouri roadways. The
rate of fatal and serious
injury charts display annual
and five-year average fatal-
ity and injury rates per 100
million vehicle miles traveled
for these same crashes.
In addition, the fatality rate
chart includes the national
average.

MEASUREMENT
AND DATA
COLLECTION:
Missouri law enforcement
agencies submit a vehicle
accident report form to the
Missouri State Highway
Patrol who enters these re-
ports into a statewide traffic
crash database. The data-
base automatically updates
MoDOT's crash database
system which is called the
Transportation Management
System.

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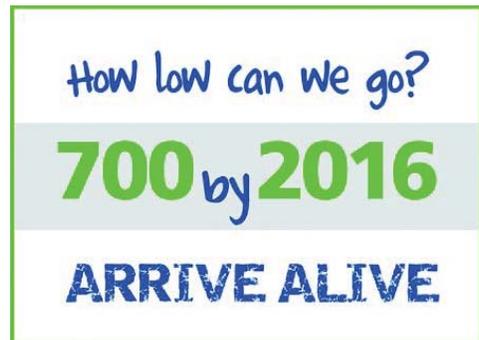
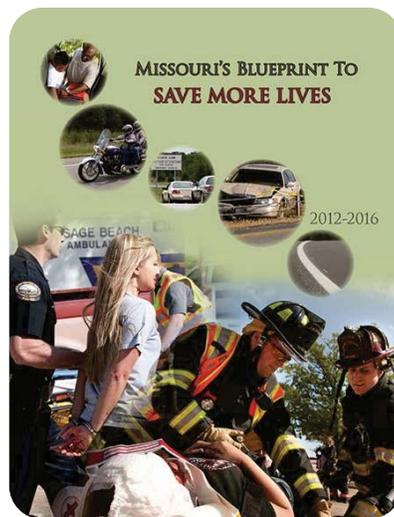
MAP-21

Number and rate of fatalities and serious injuries-1a

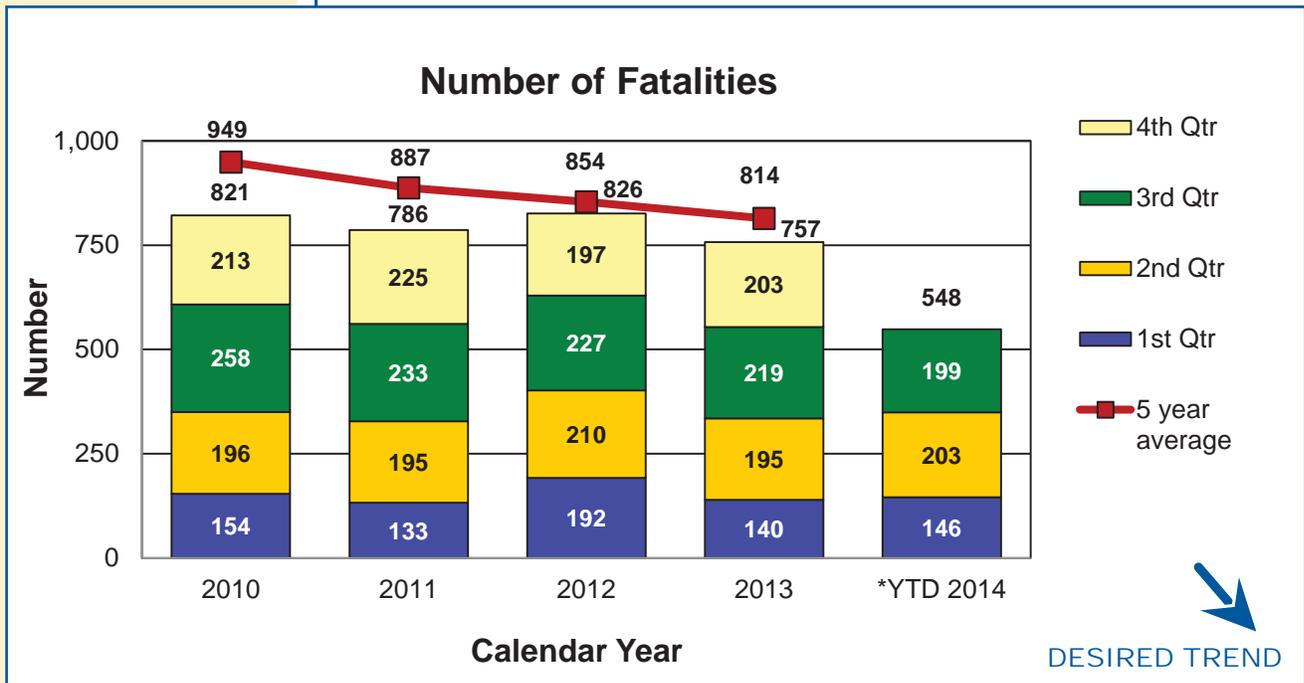
Keeping travelers safe is one of MoDOT's highest priorities. Over the last few years, fatalities and serious injuries have experienced a significant decline of 40 percent since 2005. The large decrease is due to safety improvements on Missouri roadways, focused enforcement efforts and educational campaigns that have kept these issues in front of motorists. When compared to the previous year, the 2013 traffic fatality count decreased by 8 percent to a total of 757. The five-year average continued on a downward trend to 814 in 2013. The first three quarters for 2014 showed a 1 percent decrease in fatalities.

Serious injury data for 2013 are still incomplete. Early indications reflect a continued downward trend for both the number and five-year average of serious injuries for the eighth straight year. The 2013 fatality rate per 100 million miles traveled fell to the lowest rate on record to 1.09. In 2012, the national fatality rate per 100 million miles traveled was 1.13.

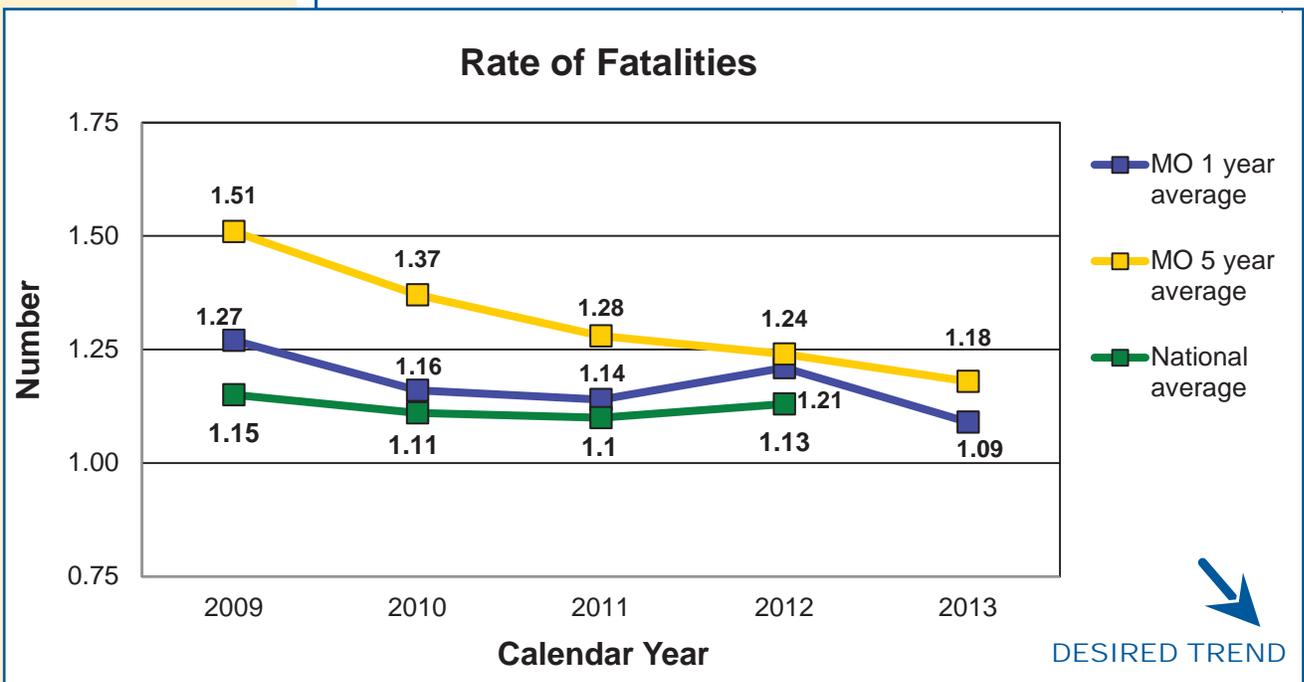
As funding levels decline, MoDOT will be challenged to deliver system-wide safety improvements.



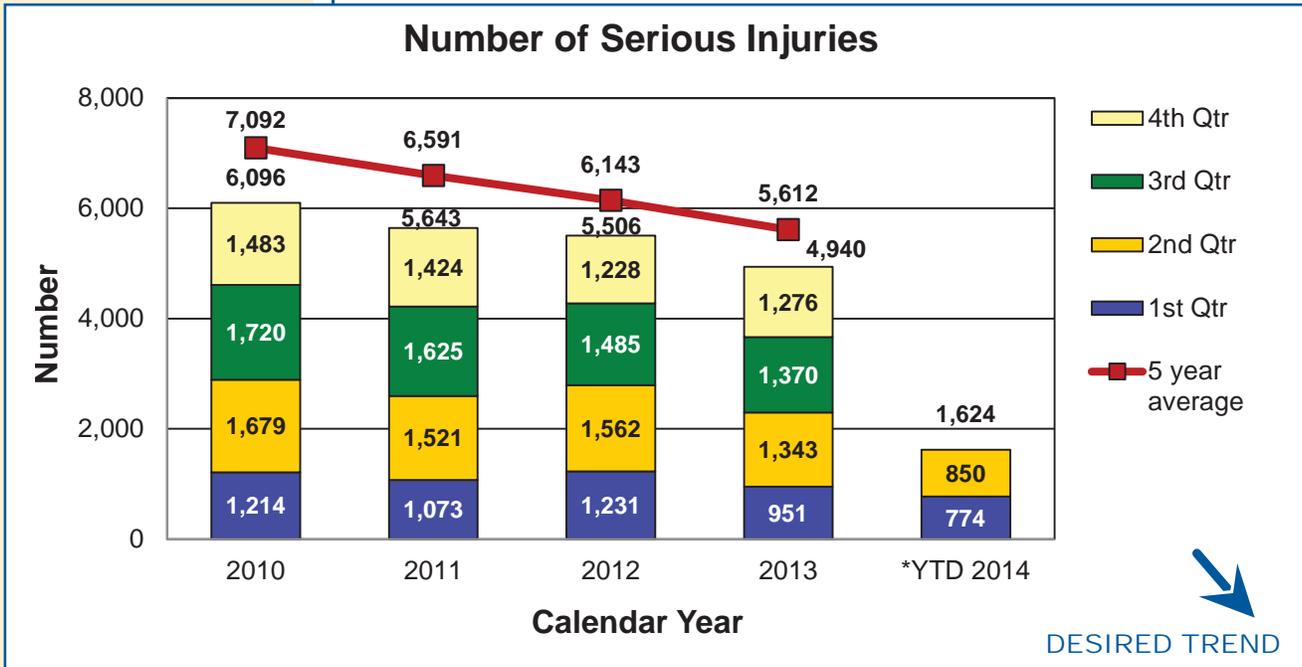
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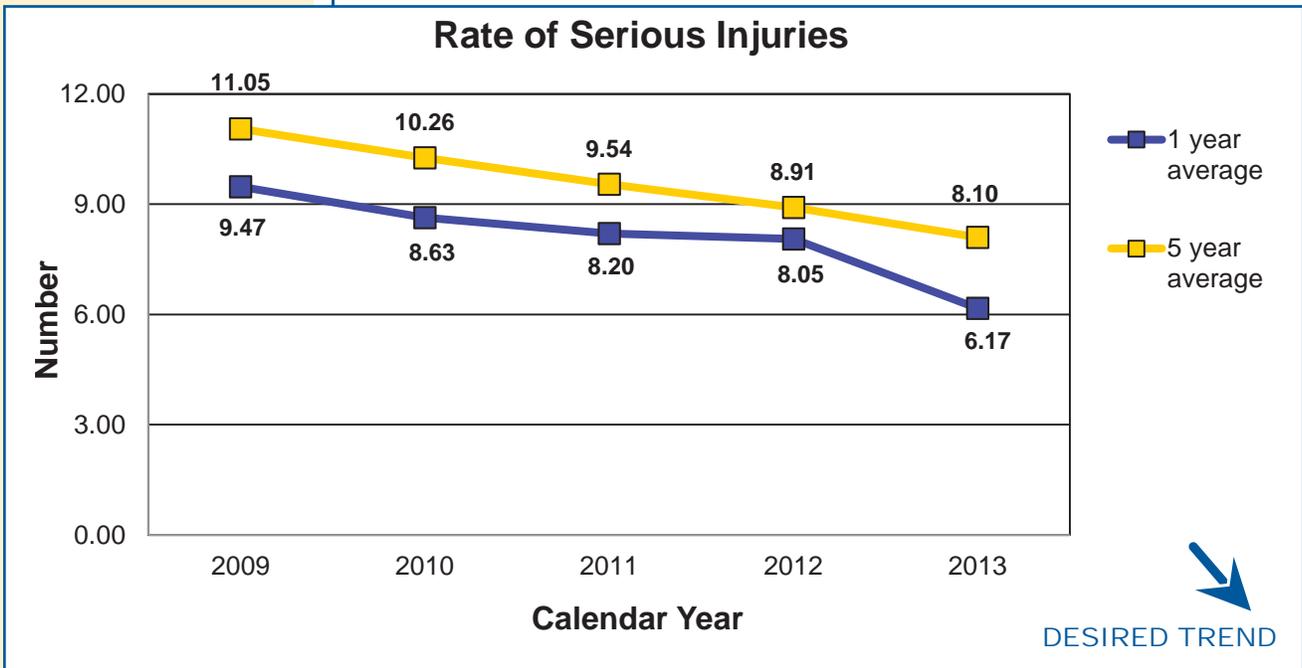
*YTD 2014 – First and second quarter fatalities were derived from TMS and third quarter fatalities gathered using MSHP radio reports.



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*YTD 2014 - Due to a backlog of crash reports into STARS, the serious injury measure for the first and second quarter 2014 will only illustrate data derived from TMS. Third quarter 2014 data is unavailable through the MSHP radio reports.



RESULT DRIVER:
Eileen Rackers,
State Traffic and Highway
Safety Engineer

**MEASUREMENT
DRIVER:**
Leanna Depue,
Highway Safety Director

**PURPOSE OF
THE MEASURE:**
The vulnerable roadway
user measures tracks an-
nual trends in fatalities and
serious injuries of motor-
cyclist, pedestrians and
bicyclists. These roadway
users are most at risk for
death or serious injury when
involved in a motor-vehicle-
related crash.

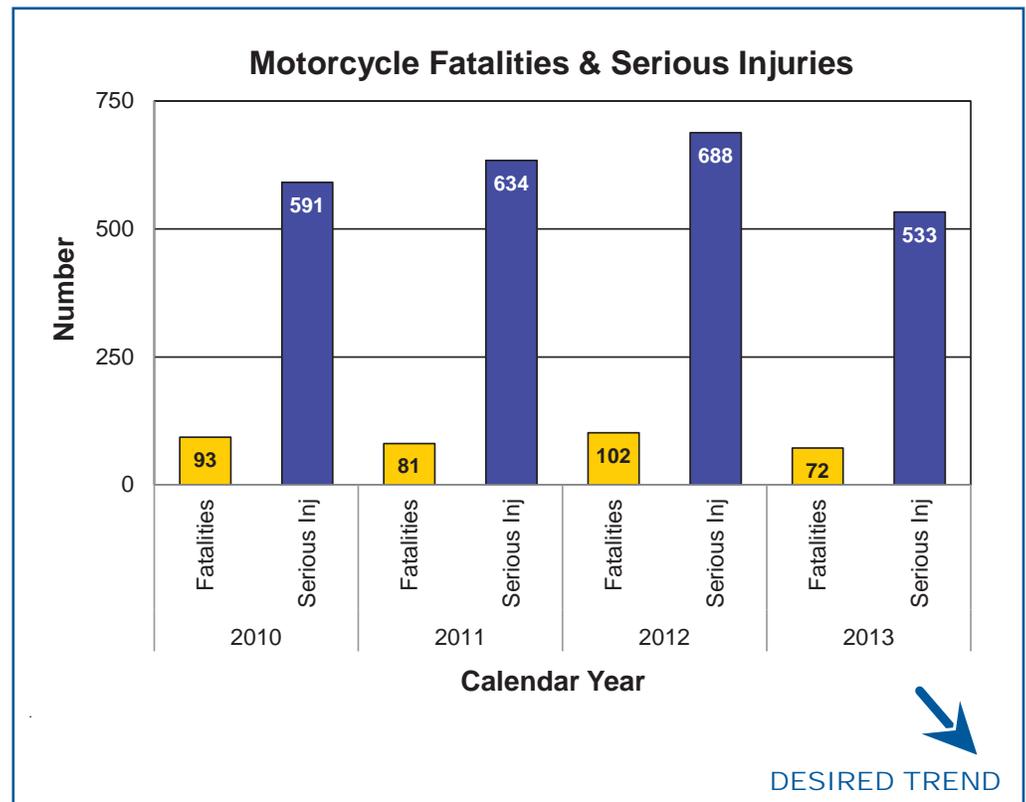
**MEASUREMENT
AND DATA
COLLECTION:**
Data is collected by law
enforcement and entered
into the State Traffic Ac-
cident Record System
managed by the Missouri
State Highway Patrol. The
record system automatically
updates MoDOT's Traffic
Management System.

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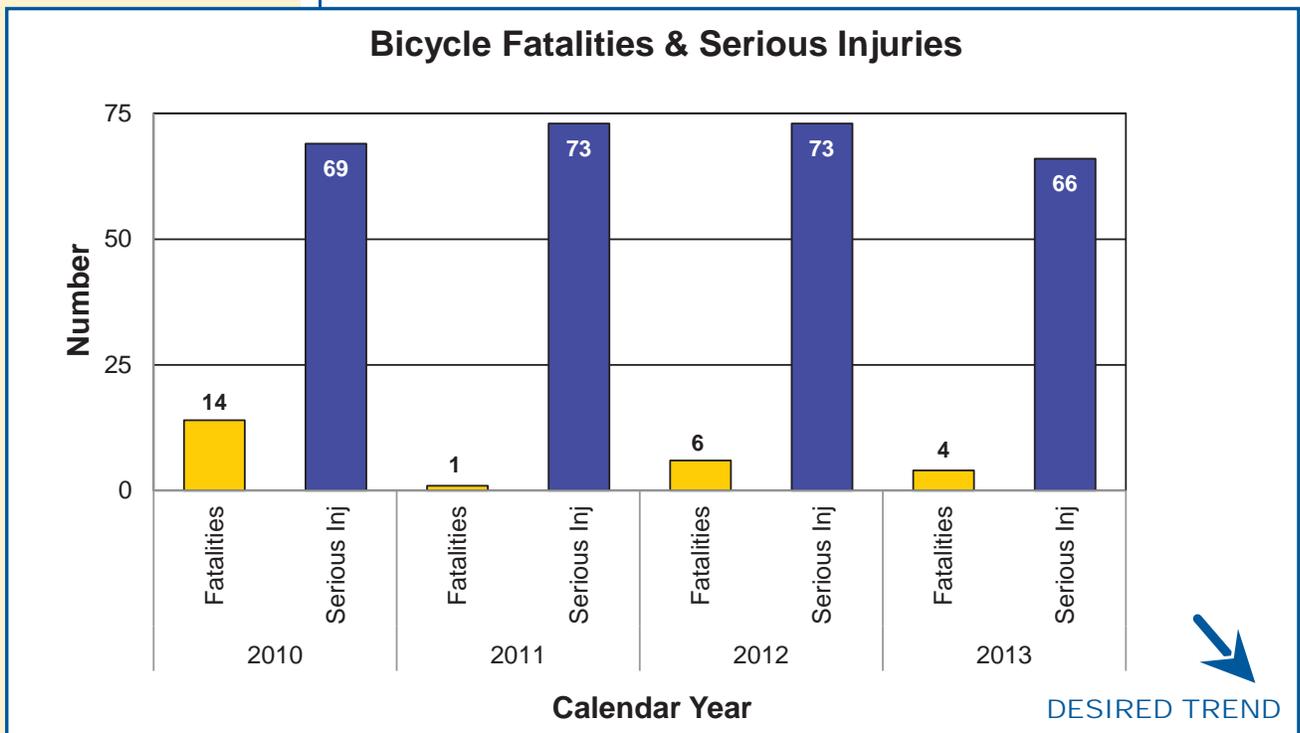
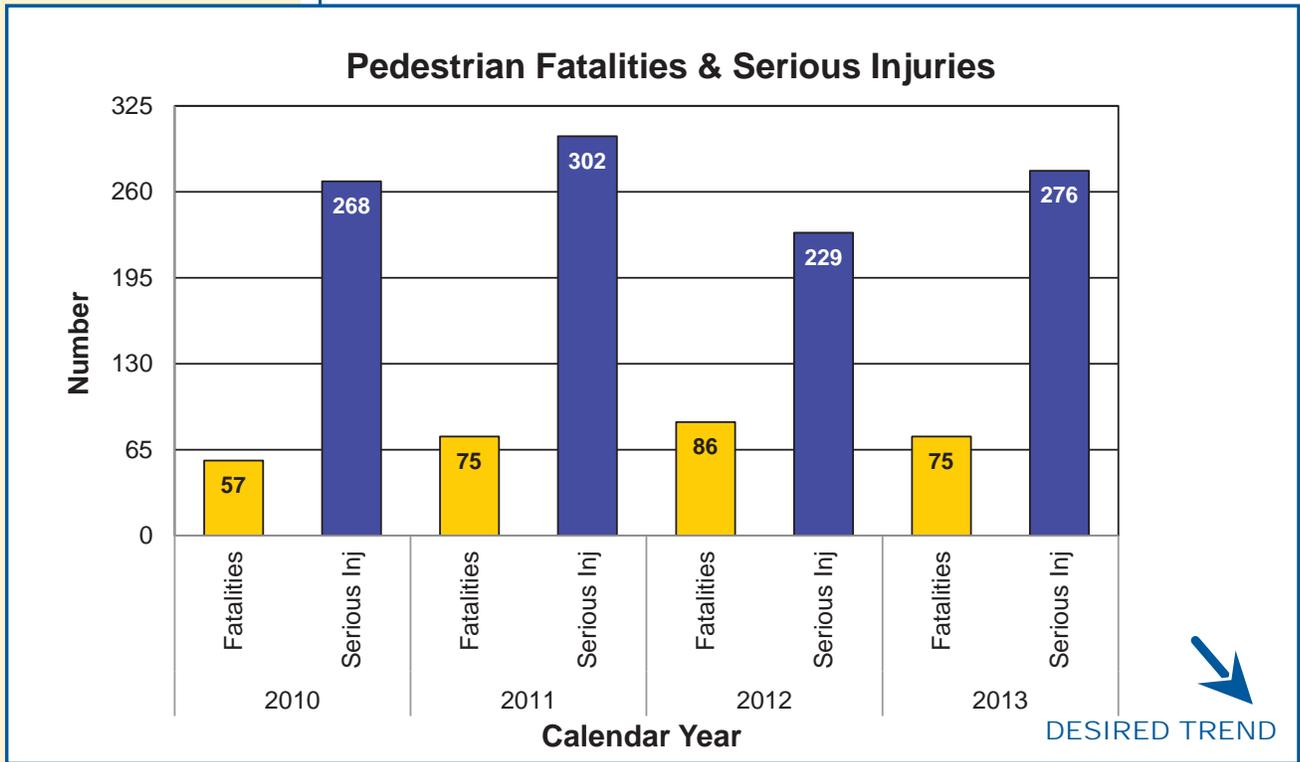
Number of vulnerable roadway user fatalities and serious injuries-1b

In 2013, vulnerable roadway users were 20 percent of the total number of fatalities. Motorcycle, pedestrian, and bicycle fatalities all decreased in 2013 by 29 percent, 13 percent, and 33 percent respectively. Motorcycle fatalities in 2013 were the lowest since 2004.

Serious injury data for 2013 are still incomplete. Motorcycle and bicycle seri-
ous injuries are showing a downward trend while pedestrian serious injuries
appear to have increased from 2012 to 2013.



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RESULT DRIVER:
Eileen Rackers,
State Traffic and Highway
Safety Engineer

**MEASUREMENT
DRIVER:**
Mike Curtit,
Traffic Liaison Engineer

**PURPOSE OF
THE MEASURE:**
This measure tracks annual trends in motor vehicle related fatal and serious injuries resulting from some of the most common contributing factors or highway features. This data represents six of the top focus areas presented in Missouri's Blueprint to Save More Lives.

**MEASUREMENT
AND DATA
COLLECTION:**
Missouri law enforcement agencies submit a vehicle crash report form to the Missouri State Highway Patrol and enter these reports into a statewide traffic crash database. MoDOT staff query and analyze this data to determine the number of unrestrained occupants in crashes, how often aggressive driving, alcohol and other drugs contribute to crashes, and whether or not the vehicles ran off the road, or the crash occurred at an intersection or within a curve.

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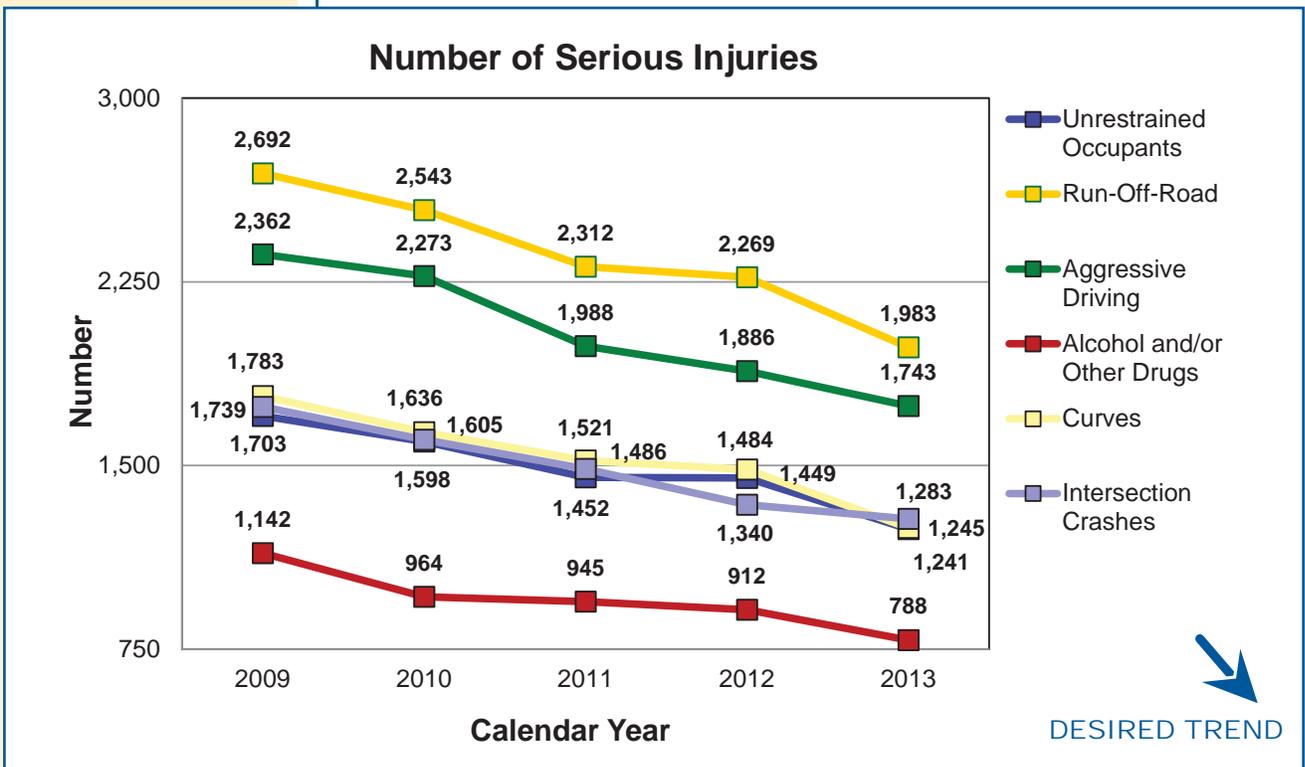
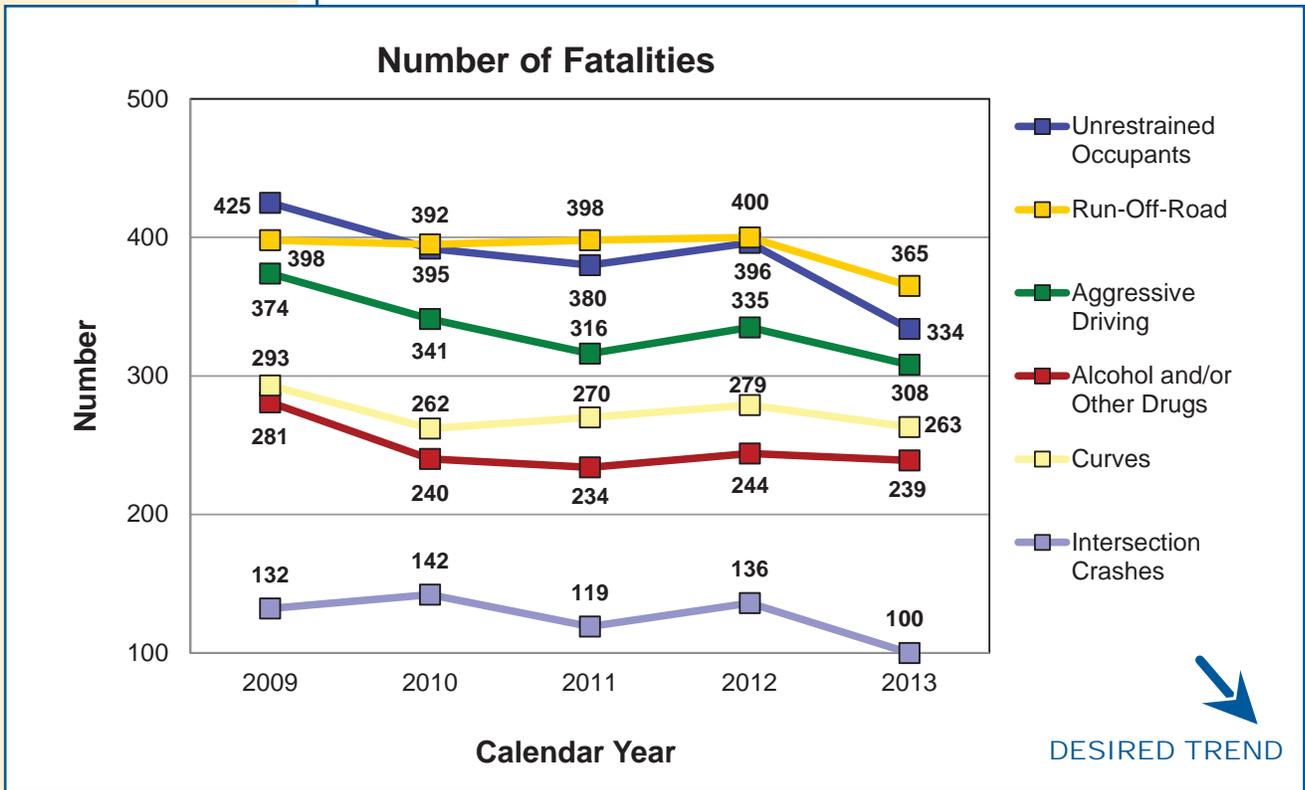
Number of fatalities and serious injuries resulting from the most frequent crash causes-1c

Recording and monitoring crash data is an important part of improving safety for Missouri drivers. But without looking at the causes of these incidents, the data is nothing but numbers. Looking for the reasons why an incident occurs is MoDOT's best approach to address the problem. With that approach, the department finds the most frequent causes continue to be a mix of engineering and behavioral issues.

The general trend for both fatalities and serious injuries has declined for the last five years. Comparing the number of fatalities in 2012 to 2013 shows the following results: 16 percent reduction in unrestrained occupants, 9 percent reduction in run-off-road, 8 percent reduction in aggressive driving, 2 percent reduction in alcohol and/or other drugs, 6 percent reduction in curve related, and 26 percent reduction in intersection related. Comparing the number of serious injuries in 2012 to 2013 shows the following results: 14 percent reduction in unrestrained occupants, 13 percent reduction in run-off-road, 8 percent reduction in aggressive driving, 14 percent reduction in alcohol and/or other drugs, 16 percent reduction in curve related, and 4 percent reduction in intersection related. The safety improvements that were included in the Smooth Roads Initiative and Better Roads, Brighter Future programs began the downward trends in fatalities and serious injuries. With both of these programs complete and without additional resources to invest in additional system-wide safety measures, the downward trends for each of these causes will be difficult to maintain. Significant improvements to increase safety will not be possible with diminishing funding levels predicted in the next few years. The primary current initiatives include adding shoulders and rumble strips to minor roads and striping all major roads prior to Memorial Day. While driver behavior is difficult to correct, MoDOT continues to focus on using funds to target locations and behaviors based on crash data analysis.



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RESULT DRIVER:
Eileen Rackers,
State Traffic and Highway
Safety Engineer

**MEASUREMENT
DRIVER:**
Julie Stotlemeyer,
Traffic Liaison Engineer

**PURPOSE OF
THE MEASURE:**
An important factor in
evaluating the safety of
Missouri's transportation
system includes the safety
of work zones on the state's
roadway system. This
measure tracks the num-
ber of traffic-related and
non-traffic related fatalities,
injuries and overall crashes
occurring in work zones on
state-owned roadways.

**MEASUREMENT
AND DATA
COLLECTION:**
Missouri law enforcement
agencies submit a vehicle
accident report form to the
Missouri State Highway Pa-
trol and enter these reports
into a statewide traffic crash
database. MoDOT staff
query and analyze this data
to identify work zone related
crash statistics.

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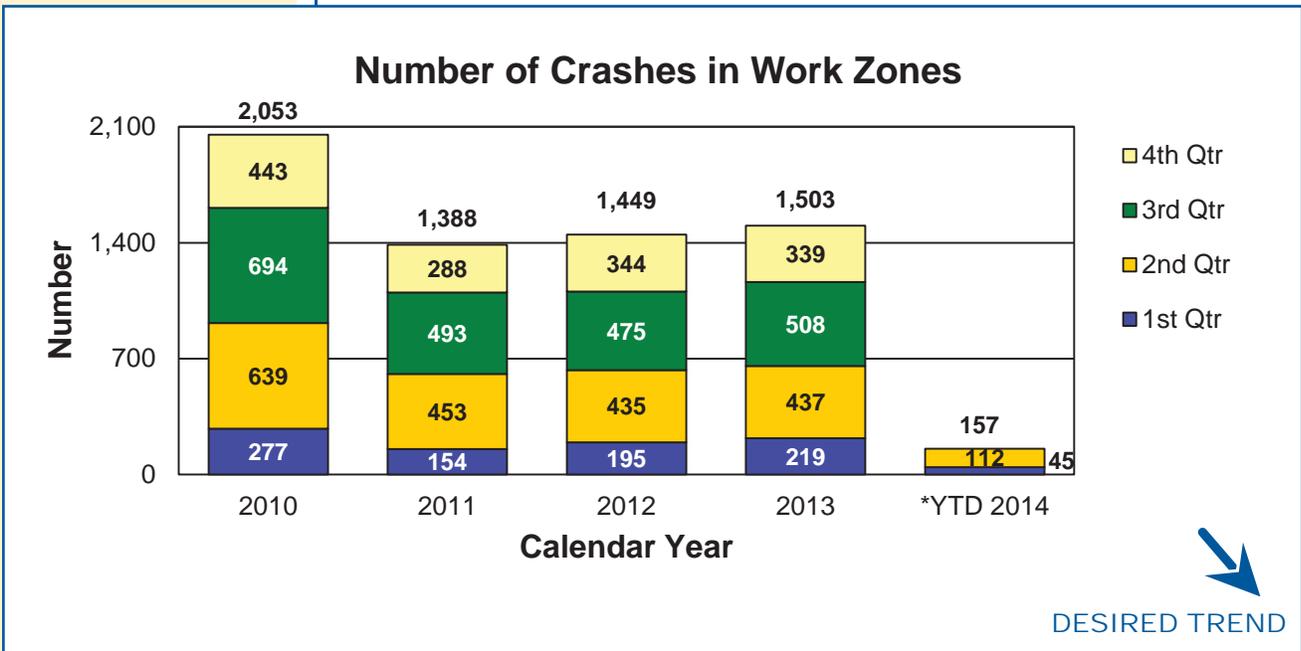
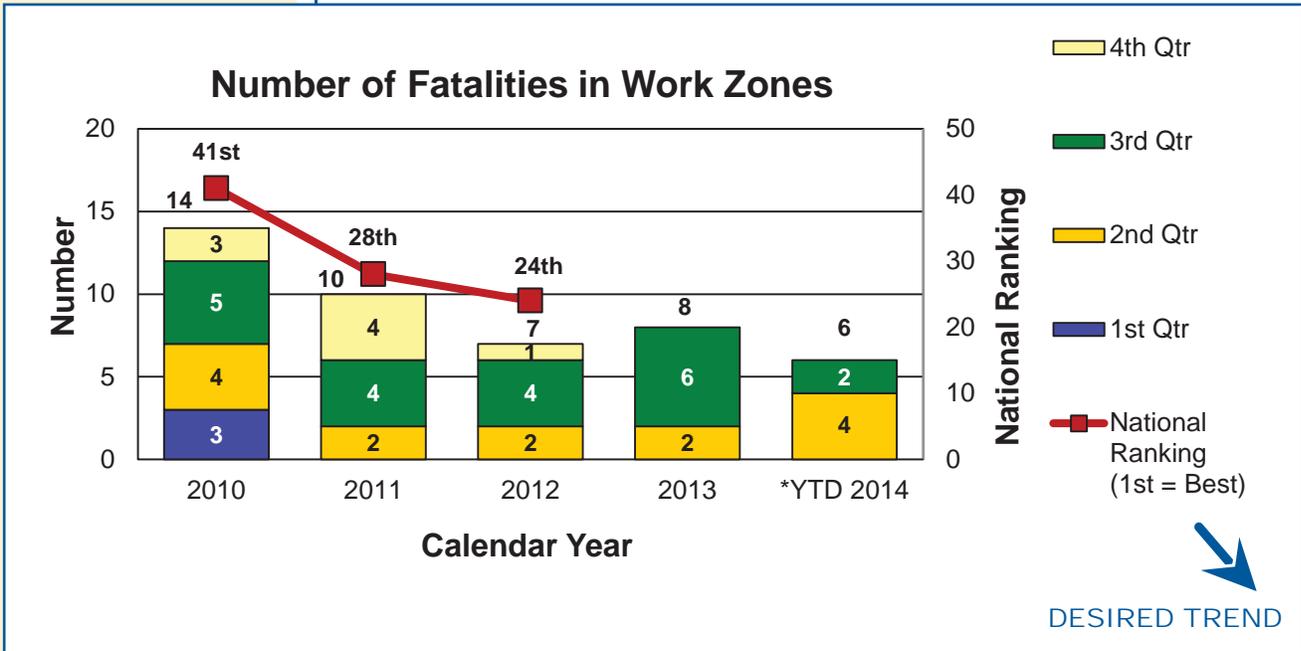
Number of fatalities and serious injuries in work zones-1d

Work zone safety is at the center of MoDOT's safety culture. It is a driving force in all maintenance and construction work. Just as MoDOT expects its crews to be safe and visible, it also expects contractors to provide safe work zones and visible workers. This is demonstrated by the partnership MoDOT has with contractors using the same personal protection equipment it uses; no matter if he is a state employee or a contract employee. Staying safe in work zones is also a partnership the department shares with the driving public. MoDOT wants everyone to get home safely. While MoDOT makes every effort to work safely, it is counting on motorists to pay attention, slow down and move over.

For calendar year 2014, Missouri work zones have experienced 269 crashes resulting in six fatalities and 17 serious injuries. Work zone crashes are down from this time last year. However, the number of serious injuries has increased. Fifty percent of the work zone fatalities were unbuckled.

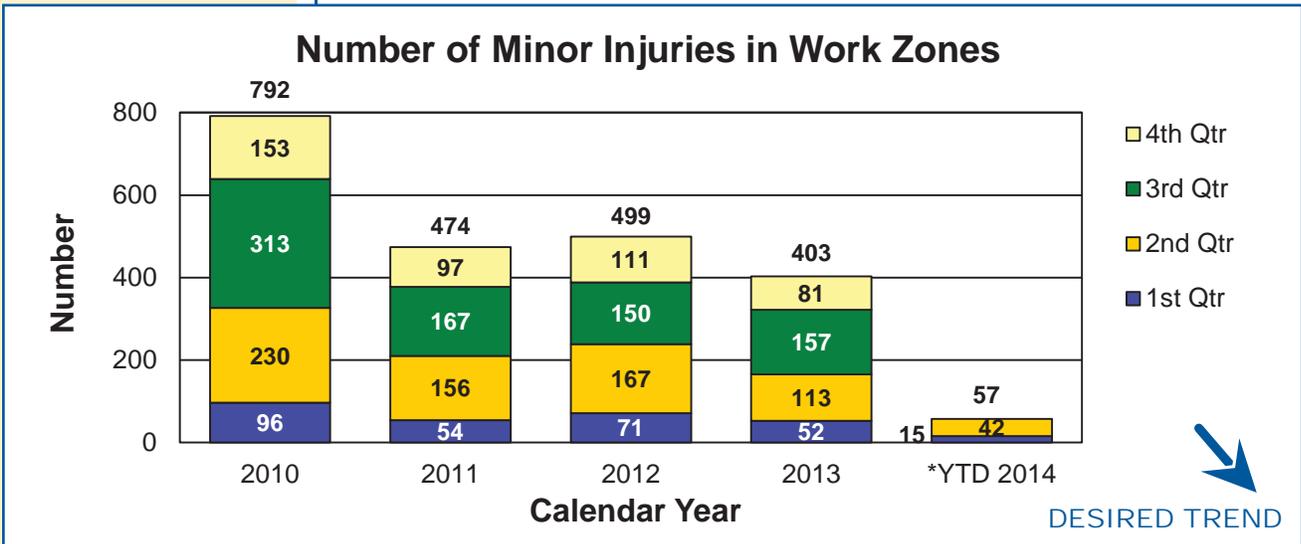
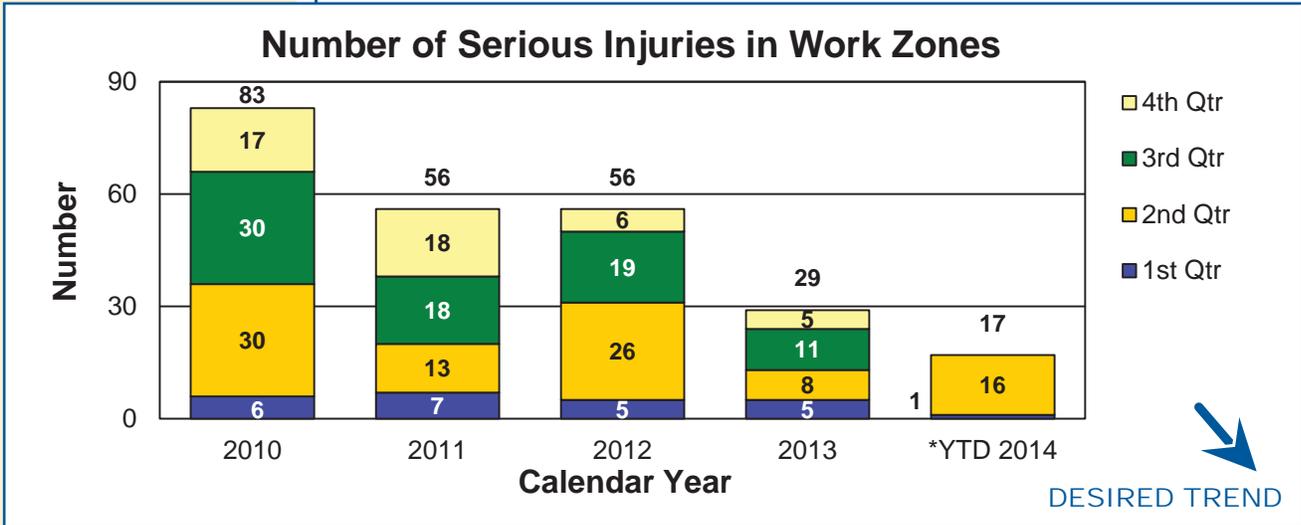


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*YTD 2014 – First, second and third quarter fatalities were derived from TMS. Due to a backlog of crash reports into STARS, the serious, minor injury and work zone crash measures will only illustrate data derived from TMS for first and second quarters. Third quarter TMS data is incomplete.

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*YTD 2014 – Due to a backlog of crash reports into STARS, the serious, minor injury and work zone crash measures for the first and second quarter of 2014 will only illustrate data derived from TMS. Third quarter 2014 data is unavailable through the MSHP radio reports.

RESULT DRIVER:
Eileen Rackers,
State Traffic and Highway
Safety Engineer

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**MEASUREMENT
DRIVER:**
Bill Whitfield,
Highway Safety Program
Administrator

**PURPOSE OF
THE MEASURE:**
This measure tracks annual trends in safety belt use in passenger vehicles. This data drives the development and focus of the Missouri Highway Safety Plan, which is required annually by the National Highway Traffic Safety Administration. In addition, this data supports Missouri's Blueprint to Save More Lives that identifies the statewide initiatives with a goal of reducing fatalities to 700 or fewer by 2016.

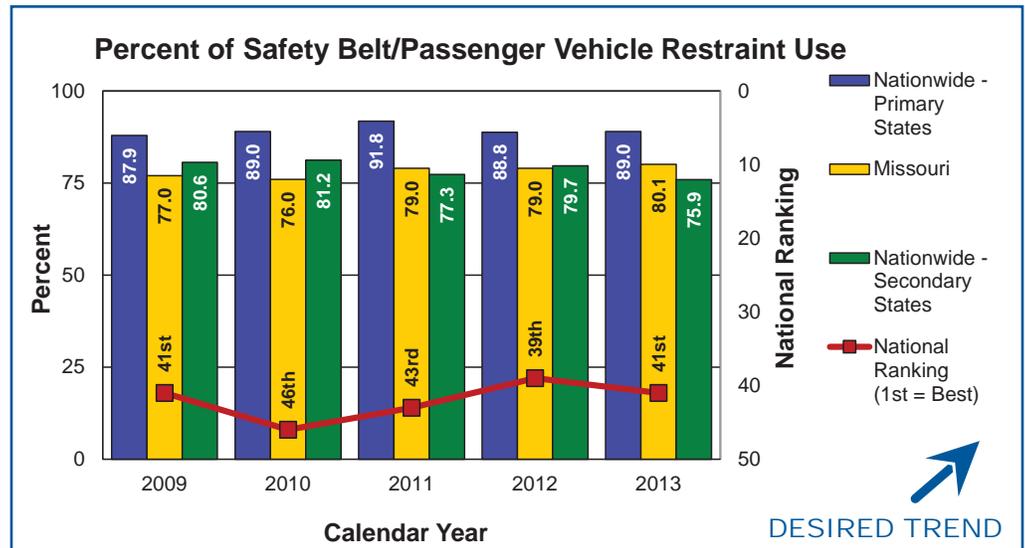
**MEASUREMENT
AND DATA
COLLECTION:**
Each June, a statewide survey is conducted at 560 pre-selected locations in 28 counties. The data collected is calculated into a safety belt usage rate using a formula approved by the National Highway Traffic Safety Administration. The safety belt usage survey collects data from locations representing 85 percent of the state's vehicle occupant fatalities. The data collection plan is the same each year for consistency and compliance with National Highway Traffic Safety Administration guidelines.

Percent of safety belt/passenger vehicle restraint use-1e

Safety belts save lives. But getting people to use them – even to protect their own lives – is a challenge. Public education is one way to keep the issue in front of motorists. Legislation is another. MoDOT supports both approaches, attacking the problem with focused marketing campaigns and reinforcing it with hard facts to back legislative efforts. Several municipalities across the state are taking matters into their own hands by supporting grassroots efforts that enact primary ordinances within city limits. Missouri currently has 39 communities with a primary safety belt ordinance.

Safety belt use in Missouri rose to 80 percent in 2013. The national average for safety belt use in 2013 was 87 percent. Missouri's national ranking dropped to 41.

Despite Missouri's consistent safety belt use, the number of states that have a primary seat belt law continues to increase, resulting in a higher rate of use for those states. States that have a secondary law continue to fall down the list in the national rankings, overtaken by those with a primary law.



RESULT DRIVER:
Eileen Rackers,
State Traffic and Highway
Safety Engineer

**MEASUREMENT
DRIVER:**
Mark Biesemeyer,
Motor Carrier Services
Program Manager

**PURPOSE OF
THE MEASURE:**
This measure tracks the
number of Commercial Mo-
tor Vehicles involved in fatal
and serious injury crashes
each year. MoDOT uses
the information to target
educational, enforcement
and improvement of safety
feature efforts.

**MEASUREMENT
AND DATA
COLLECTION:**
Missouri law enforcement
agencies submit a vehicle
accident report form to the
Missouri State Highway Pa-
trol and enter these reports
into a statewide traffic crash
database. The measure re-
ports the number of CMVs
involved in crashes in which
one or more people are se-
riously injured and those in
which one or more people
die as a result of the crash.
Preliminary results for the
current year are reported
quarterly.

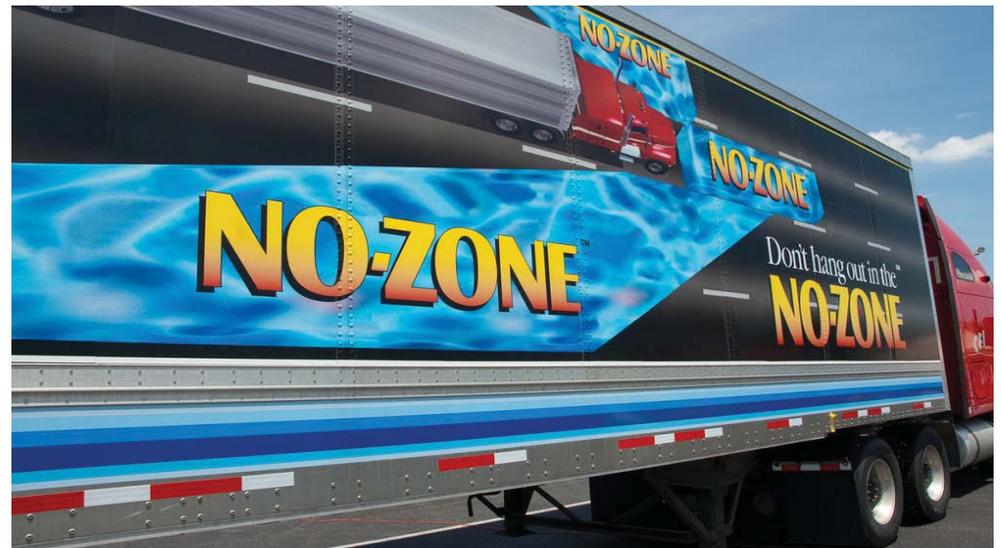
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Number of commercial motor vehicle crashes resulting in fatalities and serious injuries-1f

Commercial Motor Vehicles are the lifeblood of our economy. They transport the goods and materials that keep the nation moving. Partnering with the Missouri State Highway Patrol, MoDOT does everything in its power with reduced resources to keep CMV drivers safe and their vehicles on the road. By tracking the number of CMV crashes resulting in fatalities and serious injuries, the department can target educational and enforcement efforts, and also improve safety features such as highway signs, reflective pavement markings, guard cables, rumble strips and incident management alert signs.

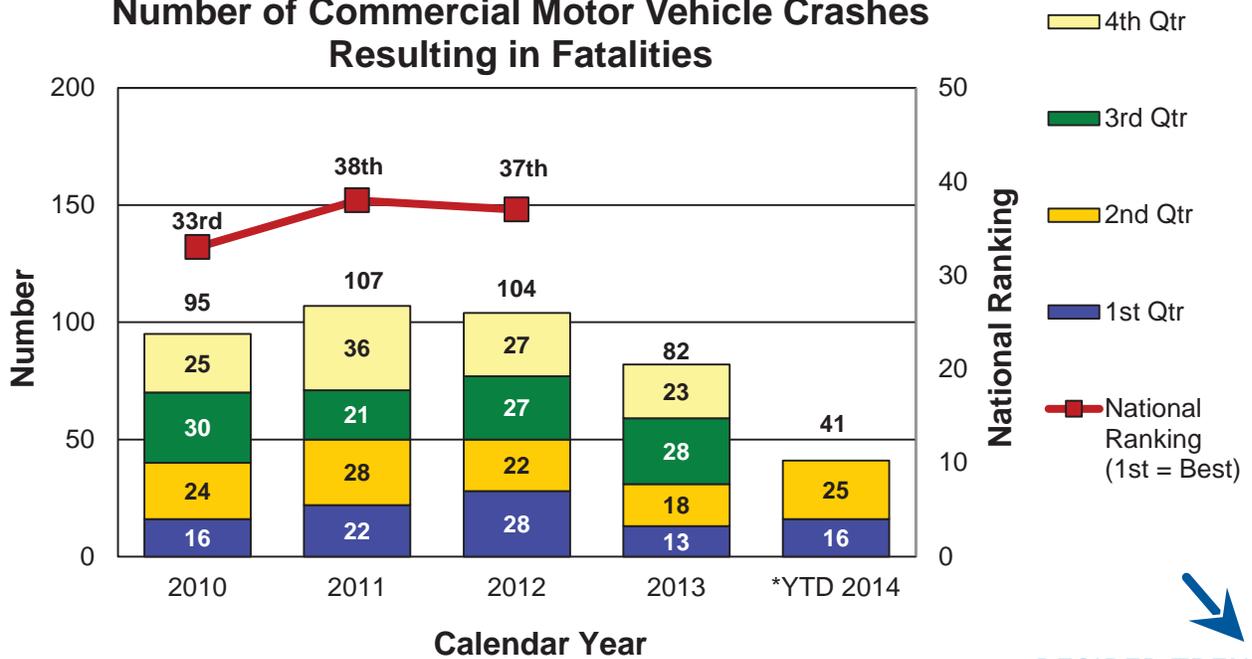
These efforts are making a difference in the number of fatality and serious injury crashes. The number of fatal crashes reported through the second quarter of 2014 is 41. This is 10 more than reported for the first and second quarter of 2013, or a 32.3 percent increase. Between 2010 and 2013, fatal crashes involving a CMV decreased by 13.7 percent.

The number of serious injury crashes reported through the second quarter of 2014 is 125. This number is 11 less than reported for the first and second quarter of 2013, or a decrease of 8.1 percent. Between 2010 and 2013, CMV serious injury crashes decreased by 16.6 percent. However, diminished funding may hamper the department's ability to make significant safety improvements in the future.



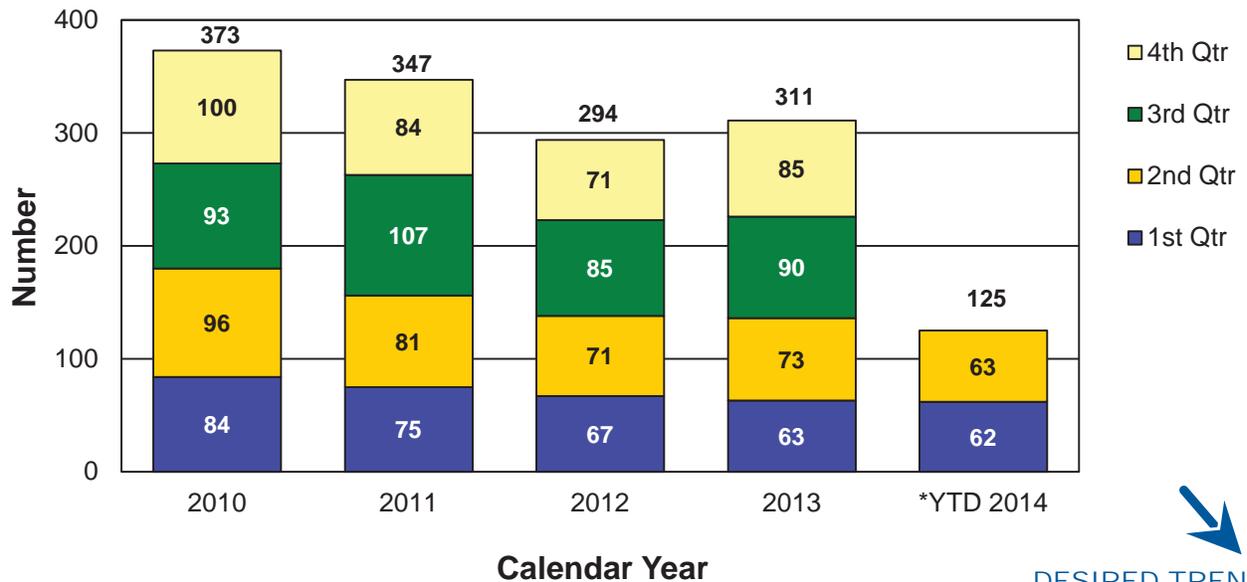
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Number of Commercial Motor Vehicle Crashes Resulting in Fatalities



DESIRED TREND

Number of Commercial Motor Vehicle Crashes Resulting in Serious Injuries



DESIRED TREND

*2014 - Due to a backlog of crash reports into STARS, the fatality and serious injury measures for the second quarter of 2014 will only illustrate data derived from TMS.

RESULT DRIVER:
Eileen Rackers,
State Traffic and Highway
Safety Engineer

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**MEASUREMENT
DRIVER:**
Roberta Jacobson,
Claims Administration
Manager

**PURPOSE OF
THE MEASURE:**
This measure tracks the
actual number of days em-
ployees cannot work due to
work-related injuries.

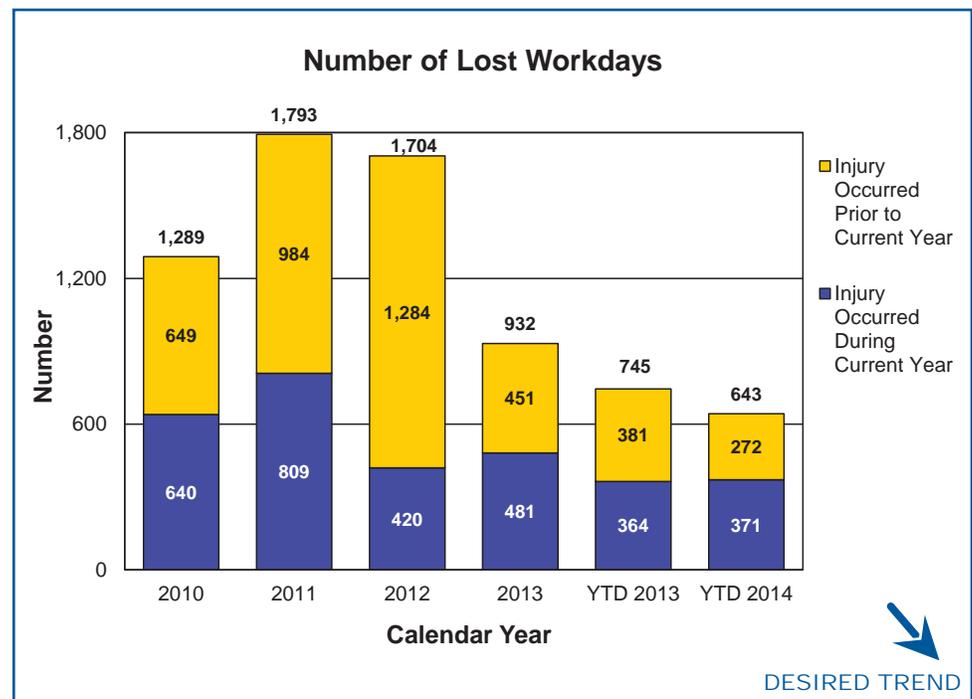
**MEASUREMENT
AND DATA
COLLECTION:**
The data is collected
from Riskmaster, the
department's risk manage-
ment claims administration
software.

Number of lost workdays-1g

The impact of work-related injuries cannot be underestimated. Employees injured at work not only affect the department but can disrupt the personal lives of MoDOT employees and their families. Measuring lost workdays shows more than a number on a chart. These are people whose lives can be changed by a split second of inattention or poor preparation. Watching this number fall over the years, shows that something is going right.

For the first three quarters of 2014, the total number of lost workdays decreased 14 percent from the same time period in 2013. There were three incidents in which employees fell or slipped on MoDOT equipment, accounting for 23 percent of the lost workdays. These occurred in the Northeast and Southeast districts. Another 22 percent of the lost workdays was attributable to three incidents involving snow or ice conditions. These occurred in the Northeast, Kansas City and Central districts. Two incidents of lifting MoDOT equipment or materials accounted for 14 percent of the lost workdays. These occurred in the Southwest and Southeast districts.

Employees are paying attention. They are wearing proper safety gear and taking proper precautions before engaging in a safety-sensitive task. The drop in this number is more than a statistic. It means more people are going home safe.



RESULT DRIVER:
Eileen Rackers,
State Traffic and Highway
Safety Engineer

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**MEASUREMENT
DRIVER:**
Jeff Padgett,
Risk and Benefits
Management Director

**PURPOSE OF
THE MEASURE:**
This measure tracks the
number of recordable inju-
ries, in total and as a rate of
injuries per 100 workers.

**MEASUREMENT
AND DATA
COLLECTION:**
The calculation for inci-
dence rate is the number of
recordables times 200,000
divided by the number of
hours worked. The 200,000
used in the calculation is
the base for 100 full-time
workers (working 40 hours
per week, 50 weeks per
year). MoDOT defines a re-
cordable incident as a work-
related injury or illness that
results in death, days away
from work or medical treat-
ment resulting in cost to the
department. The injury data
is collected from Riskmas-
ter, the department's risk
management claims ad-
ministration software. The
number of hours worked is
taken from MoDOT's payroll
data.

Total and rate of MoDOT recordable incidents-1h

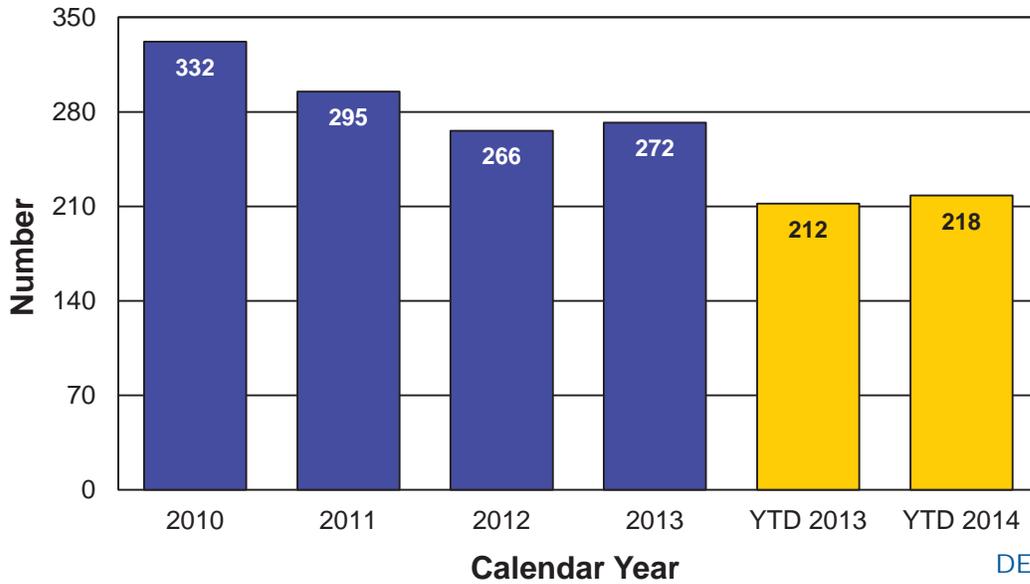
No priority stands higher than safety. Getting home safe is a responsibility every employee shares. MoDOT's dedication to employee safety is evident in the continued decline of recordable incidents. To reinforce this value, the "Safety Begins with Me" program was launched in 2013 to remind all employees that safety is a personal responsibility.

So far in 2014, the number of recordable incidents has increased when compared to the same time period from last year, while the rate of recordable incidents remained constant. Leading causes of incidents during this calendar year-to-date are: slips, trips and falls at 27 percent; strains (lifting, twisting, pushing/pulling) at 15 percent; struck or injured at 14 percent; and cut/puncture at 11 percent each. When looking at the largest category (slips, trips and falls), 40 percent of these injuries were snow/ice related. Another 29 percent occurred when employees were entering, exiting or climbing on MoDOT equipment.

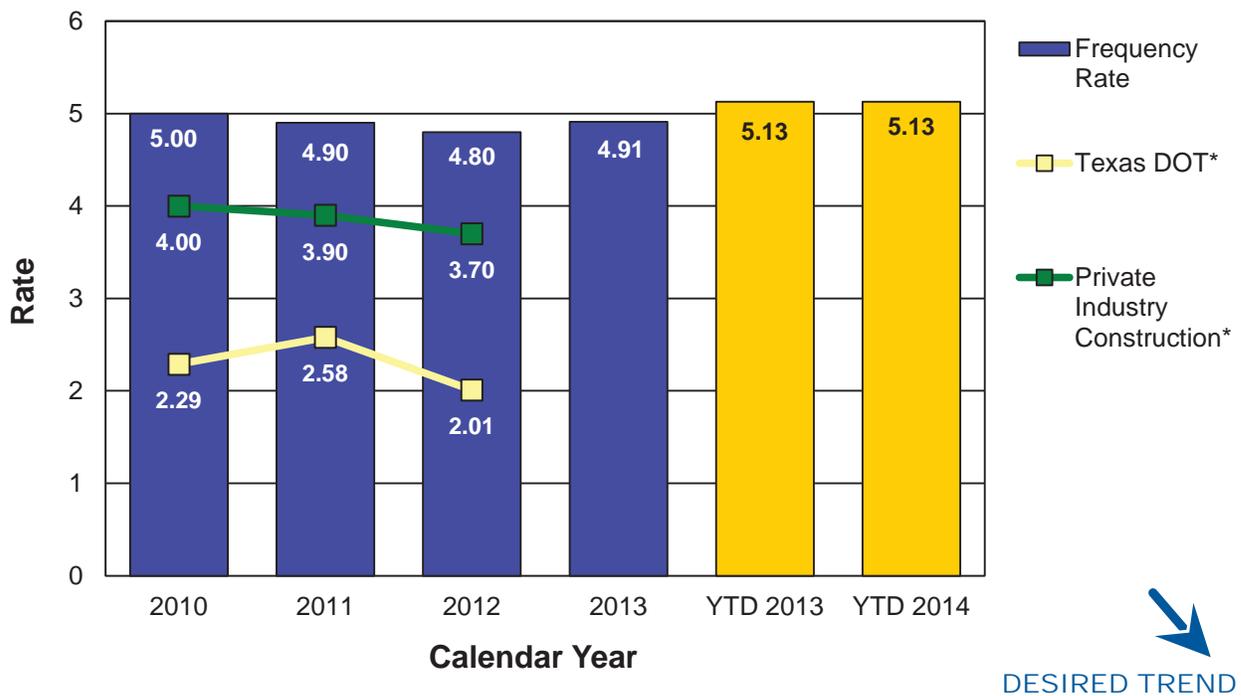


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Total of MoDOT Recordable Incidents



Rate of MoDOT Recordable Incidents



*Texas DOT and Private Industry Construction category data, from the OSHA website, are not yet available for 2013.

RESULT DRIVER:
Eileen Rackers,
State Traffic and Highway
Safety Engineer

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MEASUREMENT
DRIVER:
Steve Patterson, Safety and
Claims Manager

PURPOSE OF
THE MEASURE:
This measure tracks the
number of general liability
claims filed and amount
paid.

MEASUREMENT
AND DATA
COLLECTION:
General liability claims
arise from allegations of
injuries/damages caused
by the dangerous condition
of MoDOT property and
the injury/damage directly
resulted from the dangerous
condition. In addition, an
employee must be negligent
and create the dangerous
condition or MoDOT must
have actual or constructive
notice of the dangerous
condition in sufficient time
prior to the injury/damage
to have taken measures to
protect the public against
the dangerous condition.
Claims data is collected
from Riskmaster, the
department's risk manage-
ment claims administration
software.

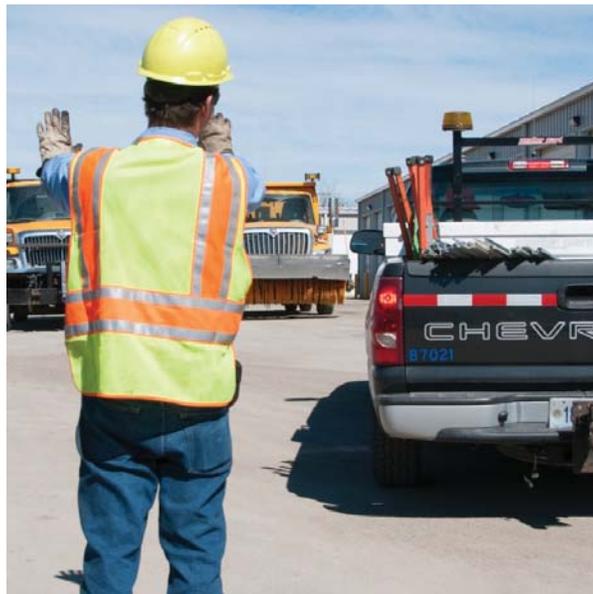
General liability claims and costs-1i

Keeping ourselves and the public safe is MoDOT's top priority. Controlling damage to vehicles and reducing personal injury in work zones, right of way and other areas under department control helps MoDOT accomplish this goal. Compared to the first three quarters of 2013, there was a decrease of 8 percent in the number of claims. For year to date 2014, the majority of the claims are attributed to striping and pavement defects. During the same timeframe, there was a decrease of 4 percent in the amount paid. This quarter, payment was made on 150 claims against the department totaling \$1,543,096.56. More than half of this quarter's payments are attributed to three claims.

The department received an unfavorable arbitration on a claim occurring in 2007, costing \$422,781, where MoDOT was found to have a dangerous condition at an intersection. The accident resulted in severe injuries to one claimant.

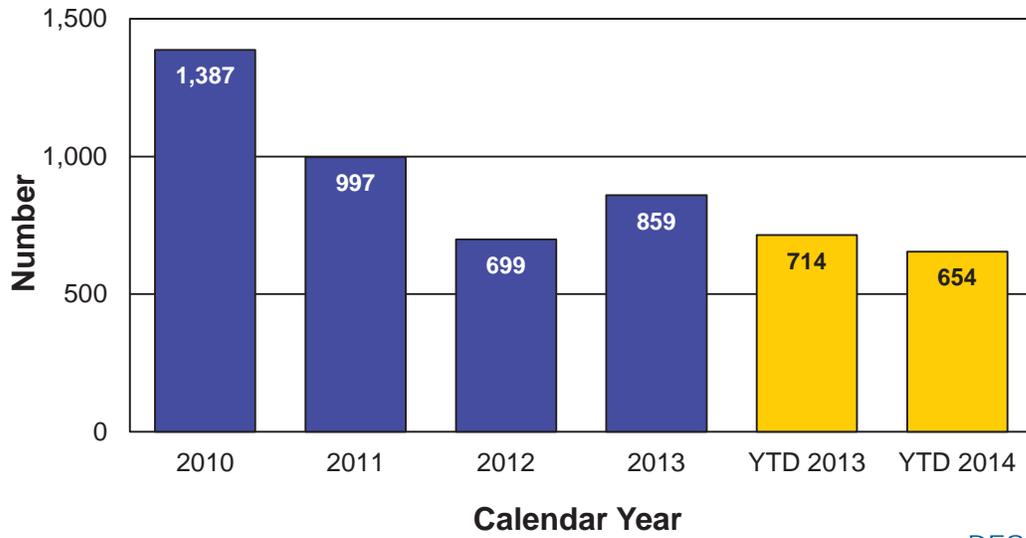
The department settled a claim occurring in 2008 for \$262,500. The accident occurred on a bridge during freezing rain. As a result there was a multiple car accident causing serious injuries.

The department settled a claim occurring in 2004 for \$310,535, based on the dangerous nature of an intersection and the history of public concerns of poor sight distance. The accident resulted in a fatality.



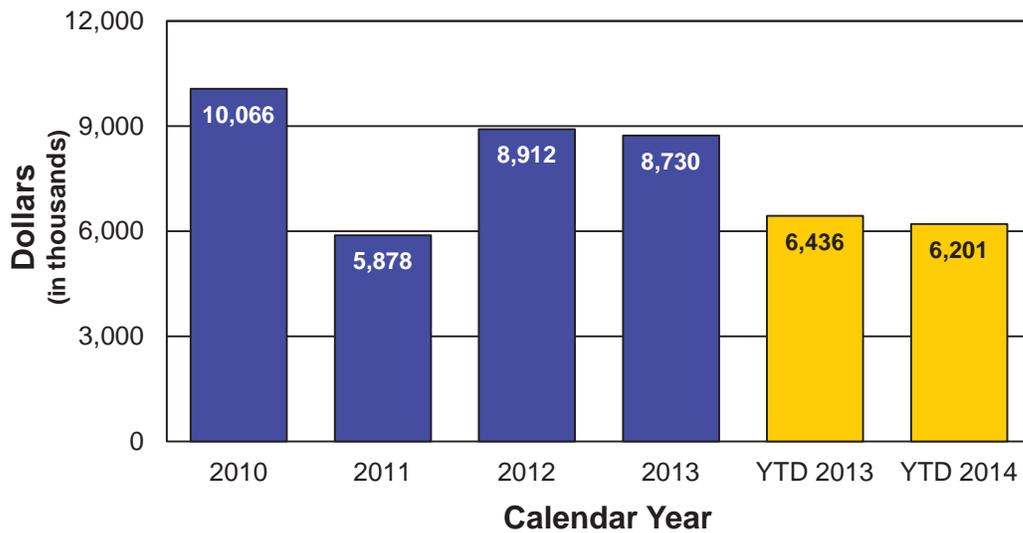
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Number of Claims for General Liability



DESIRED TREND

Amount Paid in Claims for General Liability



DESIRED TREND